Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (currently amended): A method of training an object visual inspection system, the method comprising:

specifying a single region of alignment interest within an object image;

associating the single region of alignment interest with a plurality of regions of inspection interest within the object image;

associating each of the plurality of regions of inspection interest with at least one respective inspection tool, at least one of the plurality of regions of inspection interest being associated with a first inspection tool that is different from a second inspection tool that is associated with another one of the plurality of regions of inspection interest; and

training, for each of the plurality of regions of inspection interest, each of the at least one respective inspection tools.

Claim 2 (previously presented): The method of claim 1, wherein training each of the at least one respective inspection tools requires performing statistical training using a plurality of training images.

Claim 3 (previously presented): The method of claim 1, wherein training, for each of the plurality of regions of inspection interest, is performed in any order among regions of inspection interest.

Claim 4 (canceled)

Claim 5 (currently amended): The method of claim 4 1, wherein training of the first inspection tool is performed simultaneously with training of the second inspection tool.

Claim 6 (currently amended): The method of claim 4 1, wherein training of the first inspection tool is performed either before or after training of the second inspection tool.

Claim 7 (currently amended): A method of performing inspection using an object visual inspection system, the method comprising:

aligning run-time image-data with trained image-data using a specified region of alignment interest within the run-time image data;

identifying a plurality of regions of inspection interest within the run-time image-data using the specified region of alignment interest; and

inspecting at least one region of the plurality of regions ~~region~~ of inspection interest using at least one inspection tool associated with the at least one region of inspection interest, the at least one region of the plurality of regions of inspection interest being associated with a first inspection tool that is different from a second inspection tool associated with another region of the plurality of regions of inspection interest.

Claim 8 (previously presented): The method of claim 7, wherein inspecting the at least one region of inspection interest is performed using trained image-data produced during a training mode in which a region of alignment interest is associated with the plurality of regions of inspection interest, which are each associated with at least one inspection tool.

Claim 9 (previously presented): The method of claim 7, wherein inspection of each of the plurality of regions of inspection interest is performed in any order.

Claim 10 (canceled)

Claim 11 (currently amended): The method of claim ~~10~~ 7, wherein inspection using the first inspection tool is performed simultaneously with training for the second inspection tool.

Claim 12 (currently amended): The method of claim ~~10~~ 7, wherein inspection using the first inspection tool is performed either before or after training for the second inspection tool.

Claim 13 (currently amended): A visual inspection system comprising:

a machine vision system coupled to a camera, the machine vision system including:

a display that displays the acquired image-data;

a processor coupled to the display via a bus;

a memory buffer coupled to the display and the processor via the bus;

a visual data acquisition system interface coupled to the display, processor and memory buffer via the bus and to the camera;

a user interface coupled to the display, processor, memory buffer and visual data acquisition system via the bus;

a controller coupled to and controlling cooperation of the display, the processor, the memory buffer, the visual data acquisition system interface and the user interface via the bus;

wherein, under the direction of the controller, the processor fetches instructions from the memory buffer that direct the controller to control the visual data acquisition system interface, user interface, and processor to:

_____specify a region of alignment interest within the acquired image-data,

_____associate the region of alignment interest with a plurality of regions of inspection interest within the acquired image-data,

_____associate each of the plurality of regions of inspection interest with at least one inspection tool, at least one of the plurality of regions of inspection interest

being associated with a first inspection tool that is different from a second inspection tool associated with another one of the plurality of regions of inspection interest, and

_____perform training for each of the plurality of regions of inspection interest for each of the associated inspection tools.

Claim 14 (original): A visual inspection system comprising:

a camera that acquires image-data including a digital representation of objects; and

the machine vision system as recited in claim 13 coupled to the camera.

Claim 15 (original): The machine vision system of claim 13, wherein the controller controls the processor to perform training for the at least one inspection tool by performing statistical training with reference to a plurality of training images based on instructions stored in the memory buffer.

Claim 16 (canceled)

Claim 17 (currently amended): The machine vision system of claim ~~16~~ 13, wherein the controller controls the processor to perform training for the first inspection tool simultaneously with training for the second inspection tool.

Claim 18 (previously presented): The machine vision system of claim 13, wherein, based on the instructions stored in the memory buffer, the controller controls the processor to align run-time image-data with trained-image-data using a region of alignment interest, identify a plurality of regions of inspection interest within the run-time image-data based on the region of alignment interest, and perform inspection of at least one of the plurality of regions of inspection interest using at least one inspection tool associated with the at least one region of inspection interest.

Claim 19 (previously presented): The machine vision system of claim 13, wherein the controller controls the processor to perform inspection of the at least one region of inspection interest based on trained image-data produced during a training mode in which an region of alignment interest is specified and associated with the plurality of regions of inspection interest, which are each associated with at least one inspection tool, and training is performed for the inspection tools associated with the plurality of regions of inspection interest.

Claim 20 (original): The machine vision system of claim 19, wherein the trained image-data includes template image data.

Claim 21 (original): The machine vision system of claim 19, wherein the trained image-data includes standard deviation image-data.

Claim 22 (original): The machine vision system of claim 19, wherein the trained image-data is produced by statistical training.

Claim 23 (original): The machine vision system of claim 13, wherein the at least one inspection tool is one of an intensity difference inspection tool, feature difference inspection tool or blank scene inspection tool.